The Compliance and Technical Assistance Program (CTAP)

Demolition and Renovation: Asbestos

This document is intended to help owners and operators of businesses in Indiana identify existing state and federal regulations pertaining to the removal, handling, and disposal of regulated asbestos materials. Specific regulations have only been summarized; therefore, consultation of applicable standards is necessary. Schools must comply with additional asbestos regulations. Operations involving roofing materials and floor tiles may not need to comply with several of the following requirements. Contact CTAP or OAQ for information on determining compliance requirements for roofing operations.

Asbestos-containing materials are regulated by state and federal agencies including the Occupational Safety and Health Administration (OSHA), the Department of Transportation (DOT), and the Indiana Department of Environmental Management (IDEM). OSHA regulations protect employees from airborne asbestos in the workplace. DOT regulates the transport of asbestos-containing material and waste. IDEM has two offices which regulate asbestos-containing materials: the Office of Air Quality (OAQ), which regulates asbestos hazards to the atmosphere and licenses asbestos personnel, and the Office of Land Quality (OLQ), which regulates the disposal of asbestos-containing waste. Names and telephone numbers of contacts in each of the regulatory offices discussed above can be found at the end of this document.

Determine if your building contains asbestos: If you are planning either a demolition or a renovation, you must use a licensed asbestos inspector to determine the presence or absence of asbestos in the area where those projects will occur. If the building was constructed prior to January 1, 1981, all surfacing materials and thermal system insulation are presumed to be asbestos-containing material. Do not assume that if the building was constructed after 1/1/81, there will be no asbestos present. Only a licensed inspector can conclude these materials are not asbestos-containing. Be aware that if an abatement had been conducted after the 1/1/81 date, the materials are still presumed asbestos-containing materials unless you can prove the materials contain less than 1% asbestos. (Material safety data sheets or records from previous abatement projects may be able to prove this.)

Notification: Prior to beginning the renovation or the demolition, you must:

1. use an Indiana licensed asbestos inspector to determine whether or not asbestos is present. (OAQ)
2. submit a notification to the Office of Air Quality if you are planning a demolition even if no asbestos was found at the site. (OAQ)
3. submit a notification [pdf] to the Office of Air Quality if you are planning a renovation

where regulated asbestos levels that are being stripped, removed, or disturbed exceed the following limits: (OAQ)

- $ greater than or equal to 260 linear ft. on pipes
- $ greater than or equal to 160 sq. ft. on other components
- $ greater than or equal to 35 cubic ft. on all components

4. if the asbestos project is located in Marion County and is a demolition, notify the Indianapolis Air Pollution Control Division at 317-327-2285 and obtain a permit.
5. inform other employers of the nature of the work if asbestos removal is taking place in a multi-employer worksite. (OSHA)
6. notify employees of the presence, location, and quantity of asbestos-containing material. (OSHA)

Required Training: Individuals need to acquire training before working on an asbestos abatement project. The number of training hours vary depending on the type of work the individual does. Below is a list of the licensed positions necessary for regulated abatement projects. IDEM has lists of Indiana approved asbestos training course providers, contractors, and inspectors on the OAQ website at http://www.state.in.us/idem/oam/comply/asbestos.html or by calling OAQ at (317) 232-8416 or (317) 233-3861.

1. You must use an Indiana licensed asbestos inspector to thoroughly inspect your facility for asbestos in the area where the demolition or renovation will occur. (OAQ, OSHA) If the inspector finds asbestos which will be disturbed, stripped, or removed, then the following trained employees may be necessary when handling and removing asbestos-containing material.
2. You must use a licensed contractor who will employ at least one licensed supervisor and one licensed worker. (OAQ)
3. At least one Indiana licensed project supervisor must be on-site in the work area during the asbestos removal project. (OAQ, OSHA)
4. Licensed abatement workers must be used for asbestos removal. The level of training varies depending on the type of asbestos and the nature of the work. (OAQ, OSHA)
5. Maintenance and repair workers cleaning the asbestos abatement area must receive training. (OSHA)
6. Training is required for employees who are likely to be exposed to asbestos above the permissible exposure limits. (OSHA)
7. If you use a project designer, this person must be licensed. (OAQ, OSHA)
8. Project monitors may serve as the building owner=s representative to ensure abatement work is completed according to specifications and is in compliance with all relevant regulations. They may also perform air monitoring. Currently, training and accreditation for project monitors is recommended but not required. (OAQ)
9. Be sure to use laboratories approved by the National Institute of Standards and Technology (NIST), the American Industrial Hygiene Association, or a similar organization to test the samples in accordance with OSHA or NIOSH methods.

Employee Health and Safety: To reduce employee exposure to airborne asbestos, you must:

1. Communicate asbestos hazards to employees. (OSHA) Building and facility owners must maintain records of the presence, location, and quantity of presumed asbestos-containing materials. OSHA requires that employers communicate the hazards of presumed asbestos-containing materials located in all buildings to employees who may be exposed to these materials. For example, an employer must post a sign outside a mechanical room where a pipe containing asbestos is located. The sign must:
    a) Identify the presumed asbestos containing material.
    b) Identify the location of the presumed asbestos containing material.
    c) Identify the appropriate work practices, which, if followed, will ensure the presumed asbestos containing material will not be disturbed.
    d) The pipe must also be labeled. The label must say:

DANGER
CONTAINS ASBESTOS FIBERS
AVOID CREATING DUST
CANCER AND LUNG DISEASE HAZARD

2. allow only authorized persons in the work area. (OSHA)
3. supply respirators and protective clothing in the following conditions:
    - $ if exposure limits are exceeded
    - $ during Class I asbestos jobs
    - $ during Class II work on friable asbestos
    - $ during Class II and III work when no wetting or negative pressure is used
    - $ during Class II and III work when no negative exposure assessment has been made
    - $ when disturbing thermal system insulation or surfacing material
    - $ in emergencies

    Warning signs during respirators usage shall include the following: (OSHA)

RESPIRATORS AND PROTECTION CLOTHING
ARE REQUIRED IN THIS AREA

4. set up a decontamination room for cleaning equipment, changing, and showering. (OSHA)
5. conduct personnel and environmental air monitoring when required.
6. be aware of additional OSHA requirements for Class I, II, III, and IV work. Contact BuSET for information on additional requirement for Class I, II, III, and IV.

Emission Control: When handling and removing regulated asbestos-containing material, you must:

1. have at least one licensed Indiana asbestos project supervisor present on-site during removal. (OAQ) The supervisor must perform frequent and regular inspections of the job site. (OSHA)
2. remove all friable asbestos-containing material before demolition. (OAQ)
3. do not use high-speed abrasive disc saws that do not have HEPA filtered exhaust air or ventilators. You must not use compressed air to remove asbestos materials, waste or dust. You must not dry sweep or shovel asbestos-containing material. (OSHA)
4. lower asbestos-containing material to ground level (i.e. do not drop, throw, slide, or disturb asbestos). (OAQ)
5. seal all asbestos-containing material in leak-tight wrapping or containers after adequately wetting the material. (OAQ, OLQ, OSHA)
6. store asbestos-containing material in a secure area (e.g. locked container, room, truck) where appropriate danger signs are posted or have a licensed worker remain on site if the area is left unsecured. (OAQ)
7. use a HEPA (high efficiency particulate air) filter vacuum to collect all visible asbestos debris after removal. (OAQ, OSHA)
8. have a licensed Indiana supervisor certify in writing that a final inspection was completed and there was no visible suspect asbestos-containing debris. (OAQ)

Transportation and Disposal: When you are transporting asbestos-containing waste, you must:

1. label the containers and wrapped materials. Labels must contain the following: (OLQ, NESHAP, OSHA, DOT)

DANGER
CONTAINS ASBESTOS FIBERS
AVOID CREATING DUST
CANCER AND LUNG DISEASE HAZARD
Avoid breathing asbestos fibers

Generator Label:

a. Name
b. Address of the work site
c. Telephone number

R.Q. Asbestos, 9, NA2212, PG III, Class 9

2. provide a waste shipment/disposal record with each load of asbestos-containing waste. (NESHAP, OLQ) Packings, gaskets, resilient floor coverings and asphalt-based siding and

roofing shingles containing asbestos do not have to be accompanied by a waste shipment disposal record as long as the asbestos is nonfriable. (OLQ)

3. provide a copy of the waste shipment/disposal record to the transporter and the disposal site owner. (NESHAP, OLQ)
4. determine the proper land disposal facility. Asbestos-containing waste is regulated as either a solid waste or special waste. Approved special waste landfills may accept the following:
   - $ Regulated asbestos-containing material that is properly wetted, packaged, and labeled.
   - $ Category II nonfriable asbestos transite paneling and slate board roofing that is labeled and covered with a minimum of 6 inches of solid waste before compaction.
   - $ Asbestos that is encased in concrete or metal (such as furnaces and fire safes), labeled, and covered with a minimum of 6 inches of solid waste before compaction.

   Any approved sanitary landfill may accept the following material as solid waste (these wastes do not need to be accompanied by a waste shipment disposal record) as long as the material is in good condition (nonfriable):
   - $ Packings, gaskets, resilient floor coverings (including associated mastic), and asphalt-based siding and roofing shingles containing asbestos.
5. provide the landfill with sufficient notice prior to delivery. (OLQ)
6. receive a completed copy of the waste shipment/disposal record within 35 days of acceptance by the initial transporter. (OLQ)

Definitions

Category I nonfriable: packings, gaskets, resilient floor covering, and asphalt roofing products containing more than 1% asbestos

Category II nonfriable: any material, excluding Category I nonfriable asbestos containing material, containing more than 1% asbestos that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure.

Class I: removal of thermal system insulation and surfacing material.

Class II: removal of asbestos-containing material that is not Class I. This may include floor tile, roofing materials, and shingles.

Class III: repair operations where asbestos-containing material may be disturbed.

Class IV: maintenance activities associated with the clean up of waste from Class I, II, and III.

Demolition: wrecking or taking out of any load-supporting structural member

Exposure limits: There are two exposure limits. One is a time-weighted average which has a limit of 0.1 fiber per cubic centimeter of air as an 8 hour time-weighted average. The other is an excursion limit which is 1.0 fiber per cubic centimeter of air as averaged over 30 minutes

Friable: any material containing more than 1% asbestos and, when dry, can be crumbled, pulverized, or reduced to powder by hand pressure

Nonfriable: any material containing more than 1% asbestos and, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure
Presumed asbestos-containing material: thermal system insulation and surfacing material found in buildings constructed no later than 1980
Regulated asbestos-containing material:

1. Friable asbestos material
1. Category I nonfriable asbestos-containing material that has become friable
2. Category I nonfriable asbestos-containing material that will be or has been sanded, ground, cut, or abraded
3. Category II nonfriable asbestos-containing material that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material.

Renovation: Alterning a facility or facility components in anyway

Applicable Standards

OLQ	329 IAC 10-2-179	OAQ	326 IAC 14-10
	329 IAC 10-8.1-12		326 IAC 18-1
OSHA	29 CFR 1926.1101	NESHAP	40 CFR 61 Subpart M

Agency Phone Numbers and Contacts

Occupational Safety and Health Administration (OSHA)	John Duncan	317-232-2688
Department of Transportation (DOT)	Don Arnold	317-233-1165
Office of Air Quality (OAQ-IDEM)		
(NESHAP)	Dan Lamberson	317-233-4385
(AHERA, licensing)	Frank Profit	317-232-8416
Office of Land Quality (OLQ-IDEM)	Scott Draschil	317-233-0447
Indianapolis Air Pollution Control Division	Terry Wilbur	317-327-2285
	Cheryl Carlson	317-327-2281

or contact CTAP at 800-988-7901 for additional information on regulations that may apply to your facility.